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Seeing the unseen: evidence of kaupapa Māori health interventions

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Abstract

Māori in Aotearoa have higher incidence, prevalence and mortality from chronic disease. The dominant narrative in Aotearoa about the reasons for Māori ill health neglects to acknowledge the history of colonisation and failures of the health system, alongside the holistic view of health taken by Māori focusing on collective, whānau-based outcomes. In this article, we review health interventions for chronic disease that have a kaupapa Māori philosophical basis. Our findings demonstrate that there is no clear process in health service design, delivery, research and funding that values and understands mātauranga Māori. Western knowledge systems are inadequate for collecting and presenting Māori knowledge. Overall, we highlight that the tension between acknowledging that a "by Māori, for Māori" approach is best, and the difficulty in defining appropriate evidence collection methodology and outcome measures when funders and policy makers continue to require Western-centric interventions is an obstacle to improving Māori health outcomes.

Keywords

kaupapa Māori, health, intervention, review

Background

The effects of colonisation on the well-being of Indigenous cultures, communities and individuals are well known, researched and documented and are, unsurprisingly, consistent across colonial contexts (Durie, 2003; Hokowhitu et al., 2010; Kauanui, 2008; Laenui, 2000; Marrone, 2007; Moreton-Robinson, 2016; Simpson, 2014; Simpson & Smith, 2014; Tobias et al., 2009). As a recent article bringing together practitioners and health scholars from multiple colonial contexts summarises, "Globally, health disparities between Indigenous and non-Indigenous populations are ubiquitous and pervasive, and are recognized as being unfair, avoidable, and remediable" (Jones et al., 2019, p. 512). Similarly, the negative impact of colonisation on Indigenous lifespan is internationally endemic. Typically, Indigenous peoples die considerably earlier than their non-Indigenous compatriots, creating a great sense of loss and source of pain for cultures that view their elders as bearers of knowledge critical to survivance (Vizenor, 2008).

Māori are Indigenous to Aotearoa (New Zealand) and have higher incidence, prevalence and mortality from chronic disease compared to non-Māori. Life expectancy at birth for Māori is 73 years for males and 77.1 years for females compared to 80.3 and 83.9 years for non-Māori males and females, respectively. Cardiovascular disease mortality rate among Māori is more than twice as high as that among non-Māori, cancer mortality is more than 1.5 times as high for Māori as for non-Māori adults and diabetes prevalence is more than twice the rate of non-Māori (Ministry of Health, 2015). These disparities are perpetual and the result of colonisation and the associated loss of culture and identity that comes with colonial influence on Indigenous civilisations (Paradies et al., 2015; P. Reid & Robson, 2007). The extent and longevity of health disparities is unacceptable and provides clear evidence of the failure of the health system in Aotearoa to deliver health in an equitable manner (Waitangi Tribunal, 2019). Achieving equitable health outcomes for Māori is therefore a priority.

The majority of health research on Indigenous peoples simply fails to acknowledge the causative effects of colonisation. That is, the loss of Indigenous lands, cultures, languages and identities as an advent of colonisation remains largely unacknowledged in the majority of health literature focused on Indigenous peoples (Jones et al., 2019). One of the issues with the majority of current health

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research and Indigenous peoples is that it is often validated via a logic of disparity, where statistics on a certain aspect of Indigenous health are measured against a non-Indigenous baseline. While the logic of disparity helps to define the problem, in doing so, it simultaneously defines Indigenous peoples as "the problem" to be fixed and, consequently, falls into the trap of a deficit model framing (Coulthard, 2014). Yet, we argue it is the structural discrimination within the health system itself that contributes significantly to reduced access and effectiveness of health interventions and health services (Dyall et al., 2013; Levack et al., 2016) across the lifespan for Māori (New Zealand Medical Association, 2011; Robson & Harris, 2007). The dominant narrative in Aotearoa about the reasons for Māori ill health implies that Māori have disproportionally high incidences and mortality due to non-compliance (Leventhal et al., 2005), poor-quality health behaviours and poor lifestyle choices (McCreanor & Nairn, 2002). However, such perceptions are unfounded and neglect to acknowledge the history of colonisation and the coterminous failures of the health system. Māori are in fact engaged and proactive about their health but from a worldview that reflects Māori values and principles (Penney et al., 2011). The Māori view of health is holistic, considering more than just the physical realm of bodily illness and disease. Rather, the Māori view of health acknowledges broader social, cultural and economic factors which focus on collective, whānau-based outcomes (Kidd et al., 2013; Moore, 2014).

Māori models of health exist and are well known within the Aotearoa health system (Durie, 1994, 1999; Pere, 1991). The most commonly used model is Mason Durie's Te Whare Tapa Wha (Durie, 1985) which describes Māori health as analogous to a house with four walls. The four walls of the house represent the realms of tinana (physical), hinengaro (mental and emotional), whānau (family) and wairua (spiritual) health. For a person to be well, and thus for the house to be strong, all four realms of health must be addressed. Despite acknowledgement of Māori models of health and their existence since the early 1980s, the practical implementation of the principles expressed in such models does not often occur.

While Durie's model is popular and often cited, the reason for this is possibly because the four cornerstones merely reflect Western holistic models of health, and thus simplistic translations of "wairua" to "spirituality", for example, allow for conceptual assimilation. In reality, none of these concepts are translatable to Western frameworks, especially wairua, which is akin to a sub-atomic global essence that pervades all things, both living and inanimate (hence, the belief in telekinesis, dream travel, and the visionary ability of tohunga). The point being that, although Durie's health configuration begins with Indigenous concepts, its production within the broader medical discourse soon disfigures, disassembles and reconfigures it to fit a Western medical taxonomy, and this epistemological disfiguration was a core component of successful colonisation. Yet, for Māori working with Māori there, typically at least, remains a deeper and more authentic understanding of the concepts that Durie amalgamated in forming Te Whare Tapa whā. The misrepresentation and misinterpretation of Durie's model by many non-Māori health practitioners follow a history of epistemological subjugation in relation to Māori health and well-being, stemming back to the most significant piece of Aotearoa legislature in relation to the suppression of Māori health practices: the 1907 Tohunga Suppression Act, which banned the practices of tohunga.

The Crown realised that tohunga were able to retain pre-colonial metaphysical belief systems through practices, ritual and systems of knowledge transferal that set them beyond the imperial scope of the colonising machine. Tohunga were of course also leaders of great metaphysical mana and, therefore, threatened the Crown's desire to either have Māori die off or to produce assimilated brown citizens. Such an analysis resounds with a growing literature that not only foregrounds the effects of colonisation in relation to Indigenous health disparities, but also, assumes a causality between what is now increasingly referred to as colonial "historical trauma" and epistemological violence (e.g. Atkinson, 2013; A. Brown, 2009; Chandler et al., 2003; Chandler & Lalonde, 2008; Durie, 2003; Hallett et al., 2007; Hirini et al., 2005; Oster et al., 2014; Pihama et al., 2014). That is, the "systematic subjugation" (Duran et al., 1998) of an Indigenous culture via punitive and assimilatory methods leading to cultural dissonance (or what Fanon, 1961, would call "self-loathing") and, in turn, spiritual, psychological, epistemological and physical trauma. Put simply, it is increasingly assumed that there is a correlation between poor Indigenous health colonisation and the resultant cultural dissonance.

At present, the health system in Aotearoa is at a turning point, where attempts at providing equitable health care are a significant cause of disruption in the health space. Recently, the Waitangi Tribunal released its Report on stage one of the Health Services and Outcomes Kaupapa Inquiry: WAI2575 (Waitangi Tribunal, 2019). The central allegation of the inquiry is that the primary health framework has failed to achieve Māori health equity, and further, that the framework is not sufficiently fit for purpose in its current state. In particular, concerns were raised about the role of, and resourcing for, Māori-led primary health organisations and health providers. The report argued that Māori were not able to exercise tino rangatiratanga (self-determination) in the design and delivery of primary services that impact Māori. Māori-centric health service development and delivery need to be driven by Māori. The system should no longer privilege a Western medical model of health for a population plagued by problems that Western medicine has thus far failed to solve. Interventions therefore that are inclusive of Māori worldviews and values, grown from within Māori communities, where Māori are partners, will have more of an effect on the disparity gap than any intervention grown from colonial soil.

Kaupapa Māori is a methodology that describes a "by Māori, for Māori" approach to service and project development and implementation (Smith, 1998). Kaupapa Māori provides an avenue for Māori to enact health care within a Māori worldview, while also challenging the

dominant narrative and associated power dynamics, so that Māori are not articulated as "the other". Such an approach creates solutions to problems identified by Māori, within Māori communities (Kerr et al., 2010; Pitama et al., 2011). Through the use of kaupapa Māori methodological approaches, Māori are empowered to self-determine their own health from within their own cultural value system. Kaupapa Māori approaches can thereby interrogate systems of power and dominance, to illustrate the agency and resilience of Māori. In Aotearoa, Te Tiriti o Waitangi is the founding document of the nation and describes the principles of kāwanatanga (decision making), rangatiratanga (self-determination), ōritetanga (equity) and wairuatanga (spirituality) that underpin the relationship between the government and Māori (Berghan et al., 2017). The principles of Te Tiriti o Waitangi have been poorly upheld in many areas of life, but especially so in health (Waitangi Tribunal, 2019). The use of kaupapa Māori methodological approaches to improving Māori health outcomes is an avenue for the government to meet their obligations outlined within Te Tiriti. Kaupapa Māori, by definition, means that only Māori organisations deliver kaupapa Māori services and programmes. Governmental and other non-Māori organisations can however apply a Māori philosophical lens to their services, therefore ensuring that they are responsive to Māori needs.

Health interventions built from within a Māori worldview are slowly becoming more familiar in Aotearoa. Despite general acknowledgement of the need for Māori solutions in health, there are still significant blocks in place that inhibit the widespread use of kaupapa Māori (Came, 2012; Chin et al., 2018). We contend that Western knowledge and systems for collection and analysis of evidence are still privileged over mātauranga Māori (Māori knowledge). Therefore, securing funding for Māori health interventions can be difficult because the nature of kaupapa Māori is such that it often does not meet the criteria of the Western knowledge system to be robust for evidence. For example, there is tension between the acceptance that "by Māori, for Māori" interventions are best placed to provide positive health outcomes (Crengle, 2000), and the difficulty in defining and measuring those outcomes when the funder sits within a Western medical paradigm. For instance, the understanding of what an outcome looks like tends to be determined, and thus constrained by Western medical and scientific parameters. Moreover, in service delivery, such outcomes are determined by the funder rather than by the providers or recipients of the service (O'Brien, 2015). Rather, kaupapa Māori interventions have targets and outcomes that align with the holistic and collective nature of the Māori health worldview. Therefore, interventions built from within the Māori world often cannot be measured by a Western standard. The inability to benchmark against this Western standard often means projects are not funded and therefore cannot be implemented. Despite an environment that has inherent barriers to the funding and delivery of kaupapa Māori interventions, there are innovations happening in Aotearoa.

This article demonstrates that there is no clear process in health service design, delivery, research and funding that values and understands mātauranga Māori. Furthermore, funders and researchers are thus unable to share, understand and learn from innovations in Māori health. We know that Western knowledge systems are inadequate for collecting and presenting Māori knowledge. This raises the query, how do we have impact on the dominant Western structure of health when kaupapa Māori is not held in the same esteem as Western knowledge? In this article, we utilised the Western literature review process to find health interventions for chronic disease that have a kaupapa Māori philosophical basis. In addition, we used our networks within Māori health to get a sense of the kaupapa Māori interventions and initiatives that are happening in communities. All efforts have been made to canvas academic, governmental and community sources to determine the community health interventions that are having a positive impact for Māori. The intention of this article is not to discuss health outcomes, but to describe and discuss the nature of evidence generated through interventions or initiatives that are kaupapa Māori.

Methodological process

The methodology used to review evidence attempts to traverse the tensions between Western knowledge and mātauranga Māori, including the criteria used for "evidence". This was purposefully not a systematic review of the literature, but instead involved a search for evidence reported according to non-Māori conventions and mātauranga Māori. Accordingly, our process demonstrated that a systematic review privileges Western literature that has been peer-reviewed; therefore, such an approach overlooked or dismissed equally rigorous initiatives and interventions that are based on a Māori worldview.

The review in this article is a synthesis of available literature, evidence and mātauranga that describe kaupapa Māori interventions for chronic disease management. Three main search approaches for evidence were used: academic, governmental and Māori communities. The following criteria were used to select interventions for inclusion: (a) describes a health intervention or initiative; (b) kaupapa Māori methodology or philosophical framework used in the development and delivery of the intervention and (c) intervention was for the prevention or management of one or more chronic conditions (cancer, cardiovascular disease, diabetes mellitus, obesity).

Academic

The Scopus database was searched to access academically published literature. A Google search was also carried out to access additional published literature. Various websites of universities and other academic institutions in Aotearoa (e.g. University of Waikato, University of Auckland, Victoria University, Wintec, Auckland University of Technology, University of Otago) were searched to access relevant dissertations and theses. The search terms used in various combinations were kaupapa Māori,

intervention, community, chronic disease, chronic illness, long term condition, health, cancer, cardiovascular disease, diabetes and obesity.

Governmental

Ministry of Health and District Health Board websites (in Aotearoa) were searched to collect evidence of kaupapa Māori interventions performed within communities but not reported to an academic audience. Where a report or evaluation was identified but not available online, contact was made with the relevant organisation to request access for the purpose of this article. Only interventions that had reports available were included in the findings, which may mean that important kaupapa Māori interventions were missed from this section.

Māori community

There are numerous iwi (tribe), hapū (sub-tribe) and whānau-based (family) organisations that develop and deliver health interventions with Māori. These organisations do not report findings in a Western-centric fashion and therefore the academic and governmental search approaches miss evidence from these organisations. From a Māori worldview, these community approaches are more relevant than interventions built from within academia or governmental sources because they are grounded in those communities. The authors have a wide network within the Māori health world and these networks were used to find community driven kaupapa Māori interventions. This is by no means an exhaustive exploration but is intended to get a sense of the various community-level initiatives existent for Māori. In many cases, these community initiatives do not have standard reporting mechanisms that could be drawn for use in an article such as this. Therefore, when a written report was available for an intervention that met criteria, it was requested for inclusion here. In most cases, a written report was not available, therefore a narrative that describes the types of services and programmes available is included in the findings.

Findings

From academic and governmental sources, 13 kaupapa Māori interventions for chronic disease were found, eight within the academic literature base and five from governmental sources that had reports available.

Table 1 records the interventions found that used a kaupapa Māori methodological framework philosophy in the prevention or management of a chronic condition from academic and governmental sources. The table lists the condition of focus, the intervention and its duration, and the outcome measures used to assess effectiveness. All interventions were reported as successful when assessed against their stated aims. Seven out of the 13 projects were prevention focused, looking at reducing the risk of chronic disease. The majority of the programmes were based on lifestyle change and health promotion and interestingly, most also had clinical (Western science) outcome measures associated with them.

On canvassing our professional networks for interventions that fell outside the academic and governmental lens, we found that while many and varied interventions exist, written records comprised only contractual reports produced to satisfy funders. Such records were available to be included in this article. In addition, a stock-take of interventions that aimed to improve access to cancer services for Māori was carried out by Cormack et al. (2005). A multi-methods approach was employed that incorporated a literature review, review of data, and interviews with providers and stakeholders. The approach for the stocktake was designed to deliver a comprehensive understanding of issues relevant to access to cancer services for Māori and was intended to be broad rather than exhaustive. The stocktake found very few Māori-specific cancer interventions and only one dedicated Māori cancer support service in Aotearoa. This service is not classified as an intervention or initiative and is more an integrated kaupapa Māori service that supports whānau throughout the cancer journey. Cormack reports that Māori health providers who did offer cancer-specific services offered activities such as working in Māori communities to raise awareness of cancer, cancer support groups pre- and post-operatively, and providing support to patients following a cancer diagnosis. Interestingly, as part of the stocktake, interviews with Māori health providers showed that they had a range of interventions and strategies that they deemed necessary to improve Māori access to cancer services, but little avenue to have these interventions formally recognised, funded and delivered.

Māori health agencies in Aotearoa work within a kaupapa Māori framework. Toi Tangata (www.toitangata.co.nz) are an example of an agency delivering kaupapa Māori interventions within communities that have an impact on the prevention, and management, of chronic disease. Toi Tangata develops, delivers and champions kaupapa Māori–based approaches to health, movement and nutrition. Te Whānau o Waipareira (www.waipareira.com) is an agency that has been providing kaupapa Māori services to Māori for more than 30 years with a view to supporting whānau to transform. They work in collaboration with partners in Aotearoa to develop "strong indigenous social, educational, health, economic and spiritual agendas". Services offered by Te Whānau o Waipareira work alongside whanau to understand their current needs and strengths which leads to the development of a plan and then navigation to and through services. Manawaora, The Centre for Health (www.thecentreforhealth.co.nz), is an example of small community organisation that provides kaupapa Māori health services bridging the gap between "medical and non-medical, cultural and western, illness and wellness". The Centre for Health delivers interventions and performs kaupapa Māori health research in an effort to provide Western-valued evidence for their services. Detailed methodology describing interventions, outcome measures and effectiveness for the work done by these types of organisations can be found through their websites but is of course not readily available (or valued) in an

Table 1. Kaupapa Māori interventions from academic and governmental sources.

Project	Condition focus	Intervention	Duration	Outcome measures
A controlled trial of a 12-week exercise and lifestyle management (Rolleston et al., 2019)	Cardiovascular disease (prevention)	Exercise, nutrition, mātauranga Māori	12 weeks	Cardiovascular disease risk factors, Quality of life, Acceptability
12-week exercise and lifestyle management pilot programme (Rolleston et al., 2017)	Cardiovascular disease (prevention)	Exercise, nutrition and education	12 weeks	Cardiovascular disease risk factors, Quality of life
An intervention trial for Māori at risk of diabetes-related lower limb pathology (J. Brown & Barrett, 2010)	Diabetes	Personal care plan	12 months	Podiatry measures, Diabetes knowledge
Community-based participatory research to develop a diabetes prevention documentary (Farmer et al., 2016)	Diabetes (prevention)	Documentary	23-min documentary	Formally evaluated based on Indigenous principles
Ngati and healthy prevent diabetes project (Coppell et al., 2009)	Diabetes (prevention)	Health promotion, community education and monitoring, local environment adaptation	2 years	Insulin resistance
Nurse-led diabetes service (Jansen, 2008)	Diabetes	Māori diabetes nurse educator	9–12 months	Individual and organisational effectiveness, Anthropometry, Cholesterol profile, HbA1c
Project REPLACE (Bay of Plenty District Health Board, 2007)	Long-term conditions (prevention)	Replace an unhealthy behaviour with a healthy one	24 months	Client surveys, Participant interviews
Te Whai mātauranga o te ahua noho (Murphy et al., 2003)	Diabetes	Lifestyle intervention programme	4 months	Formal focus groups Cardiovascular disease, and diabetes clinical and biochemistry Diet records
Community health worker (Simmons et al., 2008)	Diabetes (prevention)	Māori community health worker–based intervention	189 (± 128) days	Weight loss
Health literacy and the prevention and early detection of gout (S. Reid et al., 2014)	Gout (prevention)	Health literacy resources	1 hr education with whānau, Continuing Medical Education session with health practitioners	Resource trialling
Community cancer support services pilot projects (Ministry of Health, 2011)	Cancer	Patient navigation and health promotion	No fixed duration	3-year quantitative and qualitative evaluation
Kaihautu Cancer Hauora navigator (McDonald & Rolleston, 2017)	Cancer	Navigator to support health professionals improve responsiveness to Māori	6 months	Whānau experiences
Ola Ora mHealth Tool (Verbiest et al., 2018)	Non-communicable disease	Mobile phone app and website	12 weeks	Eating habits, weight, activity levels

academic reporting context. These organisations (and the many others like them) which use Māori knowledge to develop and deliver services have a mix of government, private and philanthropic funding and are often unseen in the academic environment.

Discussion and conclusion

Improvement in health outcomes is the focus of interventional health research and practice. However, despite Aotearoa's world class health system, informed by high-quality research, Māori remain disproportionally impacted by almost all health conditions compared to non-Māori. While there are many and varied interventions provided by kaupapa Māori services, formal reports are often unavailable or if available, are produced in forms that do not adhere to Western notions of rigorous research. The lack of visibility of "evidence" for kaupapa Māori health interventions to support chronic disease prevention and management is apparent from the findings reported here.

Thirteen projects were found from within academic and governmental sources, and many others were identified through our networks. There is therefore a disconnect between the theoretical assumption that kaupapa Māori programmes are best placed to support Māori health outcomes and the acceptability of the robust evidence for such an approach when such evidence is still critiqued against a non-Māori standard.

The interventions described in Table 1 are attempts to provide validation for Māori approaches within a Western evidence framework. The interventions described used either a kaupapa Māori methodology or a Māori philosophy in the design and implementation. The interventions share a number of commonalities that are implicit in a kaupapa Māori approach. Each acknowledges a Māori holistic view of health, there is a co-design or community partnership aspect, there is Māori knowledge and leadership, and there is a multi-disciplinary approach to intervention development and delivery. There is also, however, definite Western clinical focus to most interventions, and the kaupapa Māori aspects appear to be competing for visibility and respect with Western science. The publications produced that have entered the academic arena do contribute significantly to promoting kaupapa Māori as the best approach to achieve equity in health for Māori. However, the struggle between Western science and mātauranga Māori is still very evident.

Interventions that were included in Table 1 were those that could be academically reported within a Western frame, despite their kaupapa Māori context. In Western science, the quality of an evidence source is assessed based on whether or not it meets some type of inclusion criteria such as the Joanna Briggs Institute (2019) and CASP checklists (Critical Appraisal Skills Programme, 2019). The injustice that then occurs is that Western science remains the benchmark against which quality is measured and despite acknowledgement and efforts to incorporate kaupapa Māori, very few programmes will ever meet such standards. Mātauranga Māori is not clearly evident within the reporting of the interventions described in Table 1, although we acknowledge that this does not mean that mātauranga was not used. The construct and utility of mātauranga Māori means its heart and meaning are lost when they are converted for a Western reporting system and thus it would be inappropriate to fully articulate its mana (prestige and status) in such a format.

The methodology section of this article included the academic process that privileges a Western construct for finding evidence, while also adding evidence that has been missed through such a monocultural lens. When we first conceived of this article, we intended to write a literature review, and we knew that within the findings, there would be a significant imbalance between Western and Māori knowledge. Our initial challenge was negotiating how to highlight that imbalance. However, as the article evolved, we shifted to a direct analysis that demonstrates how "standard" literature reviews in fact perpetuate inequities. Scholars in Indigenous spaces confront this situation continually. There is a need to be able to review knowledge bases that inform health outcomes and methods of intervention that is a shift away from a mainstream "literature review". While there is increasing interest in review methodologies such as the integrative review, which includes qualitative and unpublished material (de Souza et al., 2010), the fundamental problem of what constitutes "evidence" remains. Similarly, a systematic review of reviews into the impact of Indigenous health research also questions the nature of evidence (Kinchin et al., 2017). In this study, the authors note that the impact of Indigenous evidence is rarely and poorly reported and call for a review framework that structures the inclusion of Indigenous health principles. We contend that the development of such a framework, while useful, will not fully address the lack of value placed by Western medicine on mātauranga and kaupapa Māori health interventions.

This article provides the forum to raise the following question: Why is kaupapa Māori evidence not accepted as valid in Aotearoa? The tension between acknowledging that a "by Māori, for Māori" approach is best and the difficulty in defining appropriate evidence collection methodology and outcome measures when funders and policy makers continue to require Western-centric interventions is an obstacle to improving Māori health outcomes. Currently however, the health environment within Aotearoa is at a cross-roads, with the Health Outcomes Inquiry finding that the primary health system has failed Māori and that Māori solutions are needed for equity to be achieved (Waitangi Tribunal, 2019). Moreover, the recent Waitangi Tribunal report (Waitangi Tribunal, 2019) recommends the development of a new Māori research agenda. Given this environment and opportunity for disruptive change in Aotearoa, Western science privilege can now be challenged further, and kaupapa Māori in its full effect can be afforded the position of power that is needed to support Māori health and well-being. This certainly calls for the prioritisation of mātauranga Māori health interventions, while also emphasising the need to legitimise reporting styles and formats that privilege mātauranga. Together this may be a step to achieving equitable health care delivery and improving overall health outcomes for Māori. Accordingly, we propose the concurrent development of a kaupapa Māori template for recognising, measuring and reviewing the efficacy of Māori health interventions.

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